LIST OF UN PAPERS AND OUTCOMES FROM THE 22 nd SESSION OF THE TRANSPORT OF DANGEROUS GOODS SUB-COMMITTEE			
AGENDA ITEM	UN PAPER	US POSITION/DISCUSSION	
1. ADOPTION OF	THE AGENDA		
Adoption of the Agenda	ST/SG/AC.10/C.3/43 and -/Add.1 (Secretariat) Provisional agenda, list of documents and annotations ST/SG/AC.10/C.3/41/Add.2 (Secretariat) Provisional timetable		
2. ADDITIO	NAL PROVISIONS FOR THE TRANSPORT	OF GASES	
	ST/SG/AC.10/C.3/42/Add.1 (Secretariat) Report of the 21 st session INF.7 (EIGA) and INF.18 (United Kingdom) Composite cylinder lifetime INF.9 (CGA) ISO Standards and approval of UN certified pressure receptacles INF.10 (ISO) Report of the work carried out by the Technical Committee ISO/TC58 INF.17 (United Kingdom) Electronic earthing of pressure receptacles carrying flammable gas INF.33 (United States of America) Transport of Helium INF.37 (United Kingdom) Cylinder safety, beverage gas INF.43 (ISO) New standards: ISO1119-1:2002; ISO 11119-2:2002; ISO 11119-3:2002; ISO 11623:2002 and ISO 13769:2002	A working group on the transport of gases met in conjunction with the session meetings from 2 to 3 Dec 2002 to finalize draft text proposed in ST/SG/AC.10/C.3/42/ Add.1and to consider the issues raised by several INF documents. The working group reviewed the INF papers and the proposed text in ST/SG/AC.10/C.3/42/Add.1. The modified text was presented to the Sub-Committee and approved for inclusion in the 13th revised edition of the Model Regulations. This included: 1. The adoption of two ISO standards for composite cylinders (ISO 11119-1 and -2). ISO 11119-3 was rejected for use in the manufacture of UN cylinders because of the following concerns expressed by the US and supported by the Working Group: (a) Insufficient testing for performance in wet/hot ambient environment (water boil test) (b) Two piece liner-less cylinder could not be consider as a fully wrapped cylinder. (c) Inadequate requalification test for unlimited service life. (d) Insufficient permeation test which will result in excessive permeation of toxic and flammable gases at the maximum transportation temperature of 65° C. (e) Insufficient glass fibre stress ratio. 2. The adoption of periodic inspection requirements for composite cylinders. However, the Working Group was of the opinion that this standard will need to be revised in the coming years to take into account new research and development being undertaken in several countries.; 3. To allow the service life for composite cylinders to be extended beyond 15 years only after the competent authority has reviewed test data on the cylinders to show that they are fit for a further period of life. In addition all composite cylinders bearing a UN marking will have to be designed for an unlimited life; 4. The Working Group agreed to add text as proposed in INF.9 (CGA), clarifying that the	

		conformity assessment of the regulations must be used when UN marking is applied, overriding the options in the standards.
		5. Text was added to the P200 to ensure that composite pressure receptacles were not to be periodically inspected and tested at the frequency specified for metal receptacles. Their test periods will be determined by the competent authority which approved the receptacle.
		6. The proposal to add the special tank provision allowing a waiver of the 4g impact test for portable tanks carrying UN1963 HELIUM, REFRIGERATED LIQUID was accepted with minor modifications. It was considered that this provision was also applicable to UN1966 HYDROGEN, REFRIGERATED LIQUID. Also the marking should be repeated on the tank plate.
3. TEXTS A PROPOS.		S NINETEENTH, TWENTIETH AND TWENTY-FIRST SESSIONS AND RELATED
	ST/SG/AC.10/C.3/2002/60 (Secretariat) Consolidated list of draft amendments to the Model Regulations and the Manual of Tests and Criteria adopted by the Sub-Committee	This document provided a consolidated list of all of the amendments agreed to by the 19 th , 20 th , and 21 st sessions of the TDG Sub-Committees. The Sub-Committee reviewed the consolidated list of draft amendments to the Model Regulations and the Manual of Tests and Criteria and amended it on the basis of verbal and written comments. The amendments were approved and will be included in the 13 th revised edition of the UN Model Regulations.
	ST/SG/AC.10/C.3/2002/61 (Germany) Para 2.8.2.5 (Model Regulations) and 37.4.1.2 (Manual of Tests and Criteria)	At the 21st session, the Sub-Committee adopted new provisions for testing substances of class 8, packing group III with regard to their corrosive properties on steel or aluminum. The US was concerned the steel type referenced for testing was difficult to obtain in the US. This paper proposed to include a steel type (ISO3574 or Unified Numbering System (UNS) 10200) that is more widely used in North America. Although the US preferred a simple reference to ISO 3574 only, it was agreed to maintain the references proposed by Germany and to add a reference to SAE 1015. The amendments proposed were adopted with the addition of comments provided by the US in INF.26 paper.
	ST/SG/AC.10/C.3/2002/71 (ICCA) Organometallic substances	During the 21 st session, the Sub-Committee agreed in principle on a new method of classification to alleviate multiple-classification possibilities for organometallic substances. ICCA agreed to consider comments related to concern over eliminating current entries. This paper reported the results of ICCA's review and recommended deletion from the Dangerous Goods List of numerous current metal alkyl entries, to be replaced by entries based on the new classification scheme. The US was not in favor of deleting several of the specific entries such as Lithium Alkyls, however, we did support the new flowchart and classification scheme and the deletion of the current n.o.s. entries. The Sub-Committee decided to maintain the substance specific and several generic entries (e.g. metal alkyls). A special provision was adopted to allow use of the substance specific entries until 1 January 2007. All existing n.o.s. entries were deleted and replaced with the new generic entries proposed by ICCA.
	ST/SG/AC10/C.3/2002/76 (United States of	An informal working group met in Paris from 11 to 13 March 2002 to consider requirements for
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America) 2.6.3.2.6, P650, 7.1.6.2.3 INF.24 (United States of America), Comments on the Proposed Text for Infectious Substances (P650) INF.32 (WHO), Transport of Infectious Substances	transporting infectious substances. At the 21 st session, the Sub-Committee considered the proposals generated by that working group. The US developed a proposal for the December meeting to require the P650 package mark instead of a 6.2 label, and to include provisions for transport using dry ice that are more consistent with those in international regulations. The US also provided comments on the new Division 6.2 requirements adopted at the last Sub-Committee meeting to address the use of live animals for transporting infectious substances and decontamination of transport units in the event the infectious substance is released from it's packaging during transport.
	In addition, the US submitted INF.24 paper to propose merging parts 1 and 2 and to remove the quantity limits to avoid confusion that may result from the differences between the requirements for Part 1 and Part 2 packagings for specimens in packing instruction P650. Specifically, INF.24 proposed:
	-to include a requirement that manufacturers and subsequent distributors provide closure instructions and that consignors ensure that closure instructions are followed;
	-that the requirements for the larger packagings specified in Part 2 be merged into Part 1 and to remove the quantity limits in Part 1; and
	-to include a requirement that consignors receive instructions in accordance with the requirements in P650. These proposals were adopted.
	In INF.32, the WHO proposed to delete the requirement to mark the outer package containing an infectious substance with the technical name of the material for security reasons. The technical name will still be annotated on the shipping paper and in documentation included in the package. This proposal was adopted (see ST/SG/AC.10/C.3/2002/CRP.4/Add 2, SP318).
ST/SG/AC.10/C.3/2002/68 (United Kingdom) P650	This paper proposed to add a sentence to the end of the revised P650, Part 1 (see ST/SG/AC10/C.3/2002/76) to address closing instructions for small packagings that are exempt from the Regulations when properly packed and marked. A statement emphasising the requirement for closing instructions from the consignor is necessary since many users of this type packaging will not be completely familiar with the transport regulations. This was adopted consistent with the modifications recommended in the US INF.24 paper.
ST/SG/AC.10/C.3/2002/58 (Austria) 5.4.1.5.8, 6.8.4.6	During the 21 st session of the UNSCOE, a new provision for the transport of solid substances in bulk containers was adopted. This paper proposed to delete a new requirement to annotate on the shipping paper the statement "Bulk container in BK(x) approved by the competent authority of" and replace with a UN marking that indicates approval. The US agreed that it should not be necessary to acquire a competent authority approval for shipping a bulk container. However, we were not convinced that a package marking is necessary or that it would not be arbitrarily marked on every freight container and then just forgotten. Several experts shared the opinion that the reference on the transport document was not practical and others were not in favor of the UN marking. The expert from Austria then withdrew the marking proposal and only

		proposed that the statement in 6.8.4.6 be deleted. This proposal was not adopted.
4. NEW PR	OPOSALS	
(a) Outstanding issues	ST/SG/AC.10/C.3/2002/75 (United States of America) Transport of solids in portable tanks	At the 21 st session of the Sub-Committee, the US agreed to develop a revised proposal for the transport of solid dangerous goods in portable tanks based on comments developed by an informal working group. This paper proposed amendments to the Model Regulations. The proposal explained the rationalized approach used to assign portable tank requirements for solids, proposes new T-code assignments, and lists currently assigned provisions that would change based on the rationalized approach. This proposal was adopted.
	ST/SG/AC.10/C.3/2002/66 (United Kingdom) 4.3.2.4 (UN 2900 in bulk)	This paper is a revision to ST/SG/AC.10/C.3/2002/30 presented at the 21st session of the Sub-Committee proposing to allow transport of UN2900 in bulk containers. The US did not support the use of sheeted containers for medical waste during the last session. We didn't agree that bulk packagings for "animal carcasses" needed to be included in the Model Regulations. This could be covered by competent authority approval in coordination with health officials. The US stated that the UK proposal did not provide an adequate level of safety especially for bulk quantities of infectious substances affecting animals. For the situations of concern to the United Kingdom (animals infected with mad cow disease or hoof-and-mouth disease as examples), USDA imposes rigid requirements on the transport and disposal of infected animals. Generally, infected carcasses are not transported at all, but are destroyed on site. Further, it is extremely unlikely that such infected carcasses will be transported internationally. The US did not support this proposal.
		While several experts felt this situation would be more effectively dealt with on a case-by-case review by the Competent Authority, others felt some countries have found themselves unprepared for sudden incidents of this nature and would benefit from the experience of other countries if these provision were incorporated in the Model Regulations. The Sub-Committee adopted this proposal from the UK.
	ST/SG/AC.10/C.3/2002/67 (United Kingdom) 4.3.2.4 (UN 3291 in bulk)	This paper was a revision to ST/SG/AC.10/C.3/2002/30 proposing to allow transport of UN3291 in bulk containers. The proposal requires that clinical waste must be contained, as a minimum, with a UN type tested plastic bag as a form of secondary containment. The HMR permits solid RMW to be transported in plastic bags inside bulk containers. The plastic bags need not be "leakproof" as specified in the UK paper; however, the plastic bags must be marked and certified as having passed ASTM tests for tear resistance and impact resistance. We believe that this is a better standard for solids than the "leakproof" standard proposed by the UK. The HMR permits waste material containing absorbed liquid to be transported in plastic film bags provided the bag contains sufficient absorbent material to absorb and retain all liquids. There are also size limitations a plastic bag may not exceed 175 L. The HMR does not permit plastic bags for liquids instead liquids must be transported in rigid inner packagings that conform to PG II performance requirements. The US did not support the UK proposal since it would allow liquid wastes to be transported in plastic bags; we also wanted to see capacity limits on inner packagings. Other experts also did not support this proposal and, after a vote,

	the proposal was not adopted.
ST/SG/AC.10/C.3/2002/77 (United States of America) Repetitive shock test	At the 21st session, the Sub-Committee considered a proposal from the US to include a vibration test in the UN Model Regulations for small packagings, IBC's, and large packagings. On the basis of an 8-8 vote, the proposal was not adopted and the US agreed to resubmit a revised proposal taking into account some of the concerns raised. This revised proposal differed from the previous proposal in the following areas: 1. Proposes a design type test and includes the test method in the relevant sections of Chapters 6.1, 6.5, and 6.6. 2. Proposes an exception from conducting the test for design types that differ in only minor respects to a design type that has successfully passed the test. 3. Provides an exception for bags and flexible IBCs in response to comments and a review of testing data on flexible packagings. 4. Removes the specific indication that other equivalent methods are authorized because this is adequately addressed in 6.1.1.2. 5. More appropriately refers to the test as a repetitive shock test. 6. Proposes a 2-year transition period and a grandfather provision for previously tested design types. 7. Amends the test procedure on the basis of comments received during the previous Subcommittee session. The US proposed Repetitive Shock Test (Vibration test) is essentially the same as the U.S. domestic vibration test for hazmat packages. It is relatively simple to perform, with a relatively simple machine, and yields consistently repeatable results. Use of this test for UN packages will result in package designs that are more robust and capable of withstanding the transport environment.
	No consensus could be reached on the introduction of a repetitive shock test. While some experts supported this proposal, others were not convinced introduction of the test was necessary or that the repetitive shock test was appropriate for evaluating the ability of the packaging to withstand transport vibration conditions. Since a conclusion was not likely to be reached in this biennium, the US withdrew the proposal and the Sub-Committee agreed to maintain the issue in the programme of work for the next biennium.
ST/SG/AC.10/C.3/2002/62 (SEFEL) Vibration test	In this paper, SEFEL took exception to the repetitive shock test methods proposed by the US (i.e., ISO 2247:2001 and ASTM 999). SEFEL suggested Military Standard 810F is a more representative test method to simulate transportation vibration impacts. If the Sub-Committee decided to incorporate a repetitive shock test into the UN Model Regulations, SEFEL proposed the use of MIL-STD 810F. MIL-STD-810F includes two vibration tests procedures that might be applicable to this discussion; Procedure I - General Vibration and Procedure II - Loose Cargo transportation. This proposal was not specific about which procedures should be used. Nevertheless, the MIL-STD-810F procedures more closely simulates the general transport environment and are performed on a computer controlled vibration table. There are some significant differences between these tests and the repetitive shock test that the US was

	proposing. In MIL-STD-810F the vibration table is run at 5 Hz, not at a frequency that can cause separation of the package from the table as we proposed. The test we proposed most closely aligns with the provisions from FED-STD-101, Method 5019.1.
	Several experts felt that this test was too expensive and not appropriate for dangerous goods, while others still opposed the principle of introducing this new test. This paper was no longer an issue once the US withdrew it's original proposal.
ST/SG/AC.10/C.3/2002/63 (SEFEL) Vibration test	This paper addresses the possibility of the US proposal related to repetitive shock testing being incorporated into the UN Model Regulations and it's effect on currently authorized packagings. SEFEL proposed that existing approved packagings be exempted from any retrospective repetitive shock performance testing. The US agreed with this proposal. This paper was no longer an issue once the US withdrew it's original proposal.
ST/SG/AC.10/C.3/2002/64 (UIC) 6.7.2.1; definition of design pressure	In this paper, UIC proposed amendments to revise the terms "design pressure" and "test pressure". The proposal was not adopted.
ST/SG/AC.10/C.3/2002/65 (United Kingdom) Transport and security INF. 16 (IAEA) INF.19 (Canada) INF.28 (Germany) INF.35 (United States of America) INF.51 (Drafting Group)	During the 21st session, the Sub-Committee considered three papers concerning the security of dangerous goods in transport. The Sub-Committee decided to incorporate some security requirements into the Model Regulations. The UK led an inter-sessional correspondence group to develop suitable multi-modal proposals for a new Chapter 1.4. The UK proposal primarily addresses the following areas of consideration: 1. Particularly sensitive materials. Provides a listing of materials having the highest potential for misuse in a terrorist incident. 2. Security plans. Requires carriers, shippers, and others engaged in the transport of particularly sensitive materials to develop a security plan. 3. Security training. Require security awareness training as a segment of required hazardous material training. 4. Security provisions for transport by road, rail, and inland waterway. Provide general crew, vehicle, and security plan requirements applicable to these modes of transportation. The US supported the proposal in ST/SG/AC.10/C.3/2002/65 in principle, but was of the opinion that some amendments were necessary in order to ensure that an appropriate level of flexibility is afforded to competent authorities and carriers, consignors and others engaged in the transport of high consequence dangerous goods. The US indicated that it is necessary to provide flexibility to account for individual circumstances taking into account such factors as the types and quantities of dangerous goods being transported; the modes of transport; security threat, vulnerability and consequence assessments; national or regional security threat levels and the routes of transport. The US submitted an INF paper proposing a clarification to indicate that the list of "high consequence" dangerous goods is provided as a guide for competent authorities, to better define the term "high consequence dangerous goods" and to amend the list based on what the US believes to be the types and quantities that pose a serious security risk. We were also not in favou

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		assess the use of technology advancements and their contribution to enhancing security. We also proposed more flexibility in the application and content of the security plans. The US proposal was used as a basis for discussions.
		All of the documents concerning the introduction of security provisions were evaluated by a drafting group prior to consideration by the Sub-Committee. After extensive discussion and amendments by the drafting group, the proposed text was incorporated with some modifications as a new Chapter 1.4 into the Model Regulations.
	ST/SG/AC.10/C.3/2002/80 (Secretariat) Comments on -/2002/65 (Joint Meeting of the UNECE Working Party on the Transport of Dangerous Goods and the RID Safety Committee)	This paper, submitted by the Secretariat for the Sub-Committee's information, provided comments made by delegations of the Joint Meeting of the UNECE Working Party on the Transport of Dangerous Goods and the RID Safety Committee on document ST/SG/AC.10/C.3/2002/65 (United Kingdom) <i>Transport and security</i> . We did not share many of the views expressed.
(b) New issues	ST/SG/AC.10/C.3/2002/7 (AEGPL) Name and description of UN 2037	This paper proposed to modify the description of UN2037 by adding the words "fitted or not with a valve" at the end of the description. The representative of AEGPL explained that many non-refillable receptacles are fitted with an internal valve which can open only under a 2 bar differential pressure. We treat aerosols and gas cartridges differently in the HMR on the basis of whether the gas receptacle is fitted with a "release device" or not. The AEGPL proposal maintained the wording "without a release device" which was necessary from a safety perspective but would allow a "valve" to be fitted. The US indicated that valves are release devices and should not be permitted for these receptacles. The US did not support this proposal. The Sub-Committee agreed that these issues should be discussed during the next biennium.
	ST/SG/AC.10/C.3/2002/8 (AEGPL) Inclusion of general requirements for gas cartridges (UN 2037)	This paper proposed replacing the current paragraph 6.2.4 concerning general requirements for small receptacles containing gas (gas cartridges) with a new paragraph providing more detailed requirements for design, construction, and initial testing. Additionally, this paper proposed introduction of Packing Instruction P204 for UN2037. The specifications proposed by AEGPL are basically aligned with IP.7B in the ICAO TI and are based on the European requirements. We were not opposed to including requirements for developing harmonized requirements for aerosol and gas cartridge specifications in the Model Regulations. However, the US did not support the proposals by AEGPL or Sweden because they did not take into account all of the existing standards (e.g. DOT 2P and 2Q). The Sub-Committee should consider all of the existing specifications prior to adopting requirements in the Model Regulations. We submitted an INF paper proposing that the ICAO TI requirements for the design and construction of aerosols and gas receptacles be used as a basis for discussion and that this matter be addressed in the 2003-2004 biennium. The Sub-Committee agreed that these issues should be discussed during the next biennium.
	ST/SG/AC.10/C.3/2002/81 (Sweden) Comments on-/C.3/2002/8	This paper proposed to add wording to the new P204 reinstating a requirement for leakproof testing each aerosol dispenser and gas cartridge. The proposed modified wording is consistent with the existing text in 6.2.4.1. See our position above. The Sub-Committee agreed that these

	issues should be discussed during the next biennium.
ST/SG/AC.10/C.3/2002/57 (Austria) Special Provision 191	This paper proposed to broaden the exemption in Special Provision 191 for UN2037, Receptacles, small, containing gas (gas cartridges). The proposal would raise the capacity limit for a receptacle that is not subject to the Regulations from 50ml to 120ml for a receptacle containing only non-flammable, non-toxic constituents. The US did not support this proposal. We submitted an INF paper indicating that a maximum pressure of 970 kPa should apply as a condition for this exception. Since this was related to previously deferred issue related to gas cartridges, it was agreed to defer consideration of this proposal to the next biennium.
ST/SG/AC.10/C.3/2002/59 (Germany) Thiolactic acid	In this paper, Germany proposed to change the classification of Thiolactic Acid UN2936 from Class 6.1 to Class 8 based on human experience that the material has a corrosive potential to skin. We did not support this proposal. Consideration of this proposal was deferred to the next biennium.
ST/SG/AC.10/C.3/2002/70 (Canada / France) UN 1203	This paper identified a problem caused by differences in translation between English and France with UN1203. The French translation is more restrictive as it refers to automotive fuel only for the Proper Shipping Name, and subsequently fuel for car engines in SP243. The proposal intended to provide a more consistent translation by keeping only Gasoline in the shipping name and modifying the SP. The proposal to amend SP243 was adopted with some modifications, but the change to the proper shipping name was accepted for the French version only.
ST/SG/AC.10/C.3/2002/73 (Germany) Chapters 3.2, 4.1 and 6.7	In this paper, Germany proposed to: 1. Add a special provision in the Dangerous goods list for UN2014, UN2015, and UN3149 to require the package to have a venting device to prevent overpressure or bursting during transport. 2. Change portable tank testing requirements in 6.7.3.2.9 by deleting the term "static forces" and replace with the term "dynamic forces".
	The Sub-Committee decided that packagings intended for the carriage of UN2014 and UN3149 should be fitted with vents, and that the requirement for a 10% ullage for UN2014 was unnecessary.
	The US did not support the proposals dealing with portable tanks and multiple-element gas containers (MEGCs). We believed that the forces are "static" forces that are intended to simulate dynamic conditions. The Sub-Committee agreed that the word "static" was correct.
ST/SG/AC.10/C.3/2002/74 (Canada) Correction of references	This paper proposed to update the reference to a Canadian Standard for rail impact testing. The Sub-Committee noted the changes required for the reference to the Canadian standard and also noted a change required for a reference to the German standard. The 13 th revised edition will include these amendments.
ST/SG/AC.10/C.3/2002/83 (Canada) Hydrogen in Metal Hydride Storage Systems	This paper proposed the addition to the Dangerous Goods List of an entry "Hydrogen in a metal hydride storage system". The paper further proposes two special provisions. Proposed

	SP"BBB" requires Competent Authority approval of the packaging. Proposed SP"CCC" requires the consignor to assign a subsidiary risk of Division 4.1, 4.2, or 4.3 as appropriate. The Sub-Committee considered that the main hazard was of Division 2.1. The subsidiary	
	hazard of Division 4.1, 4.2, or 4.3 occurring from the metal hydride might be relevant when the storage system has been emptied but could not be determined by tests before filling the system and therefore the Sub-Committee decided to not include the proposed SP"CCC". The remainder of the proposal was adopted.	
ST/SG/AC.10/C.3/2002/79 (IATA) Dangerous Goods List, Wetted Explosives	In this paper, IATA identified inconsistencies with some new entries for Division 4.1 wetted explosives added to the 12 th edition of the Model Regulations from the previous entries. The paper included proposals to resolve these inconsistencies. We agreed that the requirements applicable to the desensitized explosive entries could be clarified. In response to the proposals in IATA's paper the US: 1. Agreed with proposal a) to add Special Provision A40 to UN 3366, 3367, 3368 and 3369. 2. Did not agree with proposal b) to add SP A101 to UN 3370 because by doing so it will void the usefulness of UN 3370. SP A101 limits the content of urea nitrate to 75% which can only be attained by UN 1357. 3. Agreed with proposal c) to add subsidiary risk 6.1 to UN 3369. 4. Did not agree with proposal d). The water concentrations specified in the existing UN entries are fine. The proposal made by IATA makes sense but not essential. If we are going to follow IATA's proposal we need to take a closer look at all UN entries in terms of the format of expressing concentration limits or range to avoid creating new confusions. 5. Did not agree with proposal e) on the way to express proper shipping names for Picric Acid, Picryl Chloride and TNT. We think the existing entries in UN are sufficient. The Sub-Committee noted that the secretariat would send explanations to IATA concerning matters raised in connection with provisions for wetted explosives included in the 12 th revised edition of the Model Regulations.	
5. COOPERATION WITH THE SUB-COMMITTEE OF EXPERTS ON THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS SUB-COMMITTEE)		
The Sub-Committee will note that the GHS Sub-Committee met from 9 to 11 December 2002. The basic texts for consideration will be circulated as documents:		
ST/SG/AC.10/C.4/2002/16 and -/Adds.1-11		
ST/SG/AC.10/C.3/2002/82	At previous sessions of the Sub-Committee of Experts on the Transport of Dangerous Goods and Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), the US indicated they had initiated a study to evaluate possible confusion caused by using the same diamond-shaped pictograms both for transport and for sectors other than transport under the GHS. The study was later enhanced to consider the effectiveness of training; to determine whether emergency responders were able to differentiate	

between the transport and other sector GHS pictograms; and to assess the ability of emergency responders to recognize the meaning of the new pictograms without compromising their recognition and response to the existing transport hazard labels. In this paper, the US provided a summary of the results of the study, and proposed amendments to Chapter 1.4 (Hazard Communication: Labeling) and Annex 6 (Examples of arrangements of the GHS label elements).

The overall pattern of results appears to indicate that if effective training is provided, transport labels and GHS pictograms can be correctly identified by first responders in all of the conditions studied. Performance in identifying transport hazards decreased somewhat when both non-transport GHS pictograms and transport pictograms were present. However, the comprehensibility success rate and appropriate responses to the labelled hazards improved when the non-transport GHS pictograms were of a reduced size as compared to the transport pictograms. Limiting the size of non-transport GHS pictograms relative to the transport pictograms where both must appear on a single packaging minimizes confusion on the part of emergency responders. In addition, to the extent that non-transport pictograms do not appear on outer packagings, there would be no possibility for confusion. Consistency in application of GHS pictograms and labels will facilitate training and comprehension and advance the ultimate goal of harmonizing chemical hazard communication.

6. PROGRAMME OF WORK FOR THE BIENNIUM 2003-2004

The Sub-Committee approved the following issues for the programme of work during the next biennium as follows:

- Classification criteria for fireworks;
- Repetitive Shock test;
- Puncture test;
- Calcium Hypochlorite;
- Harmonization with GHS:
- Procedures for incident reporting;
- Standardization of emergency measures;
- Guiding principles;
- Evaluation of UN packaging requirements;
- Limited quantities;
- Hazard communication for substances that are environmentally hazardous.

ST/SG/AC.10/C.3/2002/69 (United Kingdom) - Guiding principles

During the December 2000 meeting of the Sub-Committee, the United Kingdom recommended that the Secretariat develop guiding principles which could assist experts when considering future amendments to the Model Regulations. In this paper, the UK provided background information to assist the Secretariat in developing a first draft and requested this subject be included on the work programme for the next biennium. The secretariat was sympathetic to the value of this proposal, but was concerned that it did not have a high priority and was not in favour of an extensive effort. He asked experts for assistance in preparing the principles. The

		Sub-Committee agreed to put this item on the work program for the next biennium.	
	ST/SG/AC.10/C.3/2002/72 (UIC) - Information codes for emergency measures	At the 21 st session of the Sub-Committee, the UIC discussed the possibility of harmonizing codes relevant to emergency response. It was identified that emergency response was not necessarily linked to classification and that harmonization on the basis of a systematic approach was not necessarily relevant since emergency response could be addressed differently depending on the mode of transport or by national authorities. In this paper, the UIC proposed to include an effort for harmonization of hazard and emergency response codes into the work programme for the next biennium.	
		The US opposed the use of hazcom codes and expressed concern with any effort to develop new internationally harmonized hazcom codes. The US indicated that they will not enhance a first responder's ability to respond to a hazmat spill. The ERG guide approach of linking response procedures to the UN number or PSN seems to work well and we are not aware that firefighters (at least those in North America) are unhappy with the ERG approach. We are also not convinced that the EAC code will provide sufficient information in the event of a spill and believe that these codes may actually be detrimental to safety.	
		The US has worked with the United Nations Environment Program (UNEP), the US Department of State's AID program and with the Pan American Health Organization to distribute ERGs and train first responders in using the ERG. We have also contributed resources to translations and distribution of the ERG. The ERG is now available in Chinese, Russian, French, Spanish, Dutch, Korean, Thai, Hebrew, Polish, English and Italian.	
		The Sub-Committee agreed to put this issue on the programme of work for the next biennium.	
7. DRAFT R	ESOLUTION 2003/ OF THE ECONOMIC A	AND SOCIAL COUNCIL	
The Sub-Committee	The Sub-Committee may wish to consider a draft resolution or draft resolutions to be presented to the Economic and Social Council through the Committee.		
8. ELECTIO	ON OF OFFICERS FOR THE BIENNIUM 2003	3-2004	
The Sub-Committee	The Sub-Committee re-elected Mr. Sergio Bennassai (Italy) as chairperson and Mr. Frits Wybenga (USA) as Vice-chairperson for the biennium 2003-2004.		
9. ANY OTHER BUSINESS			
	ST/SG/AC.10/C.3/2002/78 (IATA) Sequence of information on the transport document	The 12 th revised edition of the UN Model Regulation adopted two alternative sequences for the dangerous goods description entry on the shipping paper. The ICAO DGP agreed at DGP 18 to align with the Model Regulations. In this paper, IATA advised the Sub-Committee of its decision to publish in the 2003 IATA Dangerous Goods Publication the air carrier intention that from January 1, 2005 only a single sequence (UN number, proper shipping name, hazard class/division, packing group) of information will be accepted. The US was not in favor of adopting a single sequence with the UN number first. We believe that this will result in unnecessary expense with little to no benefit to safety. We did not agree that this is a single mode issue and did not agree with the statement that "Whereas other modes may have the	

flexibility to accommodate multiple sequence, for safety, operational and training requirements, the air mode does not have this flexibility." We were concerned with IATA's unilateral approach to amend its regulations to prohibit the use of the sequence of information that has been successfully used in the ICAO TI and US HMR for many years. The Sub-Committee expressed deep concern in this regard also. The US reminded the Sub-Committee that the current option of two sequences of information was a compromise that had been reached after long and difficult negotiations, and that regulatory authorities and organizations had taken steps to effectively implement this compromise solution. Furthermore, the Sub-Committee strongly recommended that IATA maintain the two alternative sequences in the next edition of their regulations. The secretariat was requested to convey the Sub-Committee's concerns with IATA. Although several delegations recognized that a single sequence would be preferable, industry would need time to adapt their computer systems to accommodate only one sequence and it would not be appropriate to change only two years after adoption of the compromise solution. We will consider steps that can be taken in the US to preclude the use of a single sequence according to the 2004 IATA DGR and will encourage IATA to remove this provision in the next edition of the DGR.

11. ADOPTION OF THE REPORT

In accordance with established practice, the Sub-Committee should adopt the report on its session and its annexes on a basis of a draft prepared by the secretariat.

*UN Papers for the 22nd session may be downloaded from the UN Transport Division website at: http://www.unece.org/trans/main/dgdb/dgsubc/c32002.html
Visit the site of the Office of Hazardous Materials Safety's International Standards Coordinator at: http://hazmat.dot.gov/intstandards.htm for pertinent information relative to the office's international activities including: Schedules of International Meetings, The UN Recommendations on the Transport of Dangerous Goods (UN Model Regulation), The UN Committee and Sub-Committee of Experts on the Transport of Dangerous Goods, International Atomic Energy Agency International Maritime Organization's Dangerous Goods, Solid Cargoes and Containers (DSC) Sub-Committee, International Civil Aviation Organization (ICAO) Dangerous Goods Panel European Agreements Concerning the International Carriage of Dangerous Goods by Road (ADR) and Rail (RID) North American Free Trade Agreement (NAFTA) Hazardous Materials Land Transportation Standards Sub-Committee.